

When genetic data meets marketing

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Researchers from The Wharton School of the University of Pennsylvania published a new paper in the *Journal of Marketing* that assesses the implications of the growth of private genetic testing for the field of marketing and evaluates ethical challenges that arise. The researchers review past research in the field of behavioral genetics and use these findings to incorporate genetic influences into existing consumer behavior theory. They then survey potential uses of genetic data for marketing strategy and research, and raise concerns regarding significant ethical challenges that arise from unique features of genetic data.

The study, forthcoming in the *Journal of Marketing*, is titled "Genetic Data: Potential Uses and Misuses in Marketing" and is authored by Remi Daviet, Gideon Nave, and Jerry Wind.

Development of cost-effective techniques for measuring the [human genome](#) has led to an exponential growth in the direct-to-consumer genetic testing (DTC-GT) industry over the past two decades. It is estimated that over 30 million customers have already taken a DNA test. At the same time, large-scale, publicly-funded genetic data collection efforts have taken off in many countries around the globe. As a result, vast datasets containing individual-level genetic measures now reside on servers owned by private companies and governments. Several global firms, including AirBnB and Spotify, have already jumped on the bandwagon and partnered with DTC-GT companies to develop business strategies that use genetic data for marketing purposes.

The authors review potential marketing applications, which include using genetic measures for identifying and reaching subsets of customers with similar needs, an approach that is expected to be particularly effective for marketing health, nutrition, and beauty products. Consumers' fascination with their genomes can also be used creatively, to increase their sense of community and personalization by building bridges between people and their distant familial and cultural histories.

On the research side, potential applications include reliance on genetically informed study designs to test causal relations between variables and refinement of consumer theory by uncovering biological mechanisms underlying behavior.

But while it may be tempting to see the potential upside, the authors also raise challenges. Daviet notes, "The use of genetic data by marketers is already taking place, and we have concerns about this trend, due to unique features of genetic data: (1) individuals can easily be identified by a small fraction of their genetic data; (2) it is informative about one's relatives; (3) it is predictive, to some degree, about almost every human trait; and (4) it is immutable."

Nave adds: "Because of these unique features, the use of genetic data by marketers might create threats to consumer autonomy and privacy. There is also potential for misinformation because consumers' perceptions of genetics might lead them to believe that genetic-based recommendations are always backed by solid science, which might not always be the case."

The authors further caution that their concerns are barely, if ever, addressed by current regulations. In the US, the license to use and share genetic data for marketing purposes depends on the privacy policy of each individual company. Many such companies do not provide customers any privacy information before they purchase genetic-testing

kits, and the policies of many others indicate that they may use genetic data for purposes other than delivering ancestry and health reports. Under current European laws, one must explicitly consent to processing of such data. However, consumers might end up approving mining of their [genetic data](#) without reading the legal terms and services. Then, virtually every marketing application becomes possible despite the strict sharing restrictions.

Finally, the study highlights several gaps in the current state of knowledge and sets an agenda for future research. Important open questions include the need to evaluate how predictive genetic measures are, relatively to other types of data that are readily available to marketers, and how consumers will react to the use of their data by private companies.

More information: Remi Daviet et al, EXPRESS: Genetic Data: Potential Uses and Misuses in Marketing, *Journal of Marketing* (2020). [DOI: 10.1177/0022242920980767](https://doi.org/10.1177/0022242920980767)

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